

proportional to the accelerator pedal releasing velocity. This impact produces on the piezo-electric sensor a signal proportional to the force of the impact. The electronic circuit analyzes the signal level, and when this signal goes beyond a preset threshold, the brake lights are lit for one second if the brake pedal is not activated.

Detailed Description Text - DETX (2):

In FIG. 3A a first GAS mounting possibility is shown. The sensor is attached to the accelerator pedal arm 200 on the upper side 207. The human engineering and the functioning of the accelerator pedal remain unchanged. During normal driving, the driver's foot 202 actuates the accelerator pedal 201, tensing the spring 205 and pulling the carburetor cable 206. According to IL 97397, the movements of the accelerator pedal produce all the time an acceleration vector on the sensor 204. The acceleration vector causes a change in an electric parameter in accelerator sensor 204. In the FSR version, a drop in the electric resistance of the sensor occurs, while in the piezo-electric version an electric charge is produced by the piezo-electric element. When the change in the electric parameter of the sensor 204 produced by the acceleration vector passes beyond a predetermined level, as when the driver's foot suddenly or abruptly releases accelerator pedal 201, the electronic circuit of the GAS activates the brake lights for one second.

Detailed Description Text - DETX (16):

The bending of the sensor 330 causes electrical parameter changes in the

sensor. In the version of the FSR, the bending of the right end 331 produces a mechanical stress between the sheets 433 and 434 (FIG. 5B). This stress causes the electrical resistance of FSR to drop. When the electrical resistance of the sensor 330 drops below a preset value, the electronic circuit (FIG. 4) will activate the brake lights for one second. In another version of the sensor, a piezo-electric element is used. The right side 331 of the sensor 330 made of materials like plastic, ceramic or other, and bends freely when the housing 310 comes to a halt.

US-PAT-NO: 5387898

DOCUMENT-IDENTIFIER: US 5387898 A

TITLE: Brake lights activation system and
inertial signal-generating device therefor

DATE-ISSUED: February 7, 1995

US-CL-CURRENT: 340/479, 310/329 , 310/330 , 340/463 ,
340/467 , 340/665

APPL-NO: 07/ 837330

DATE FILED: February 18, 1992

FOREIGN-APPL-PRIORITY-DATA:		
COUNTRY	APPL-NO	APPL-DATE
IL	97397	March 1, 1991
IL	99836	October 23, 1991
IL	100197	November 29, 1991

----- KWIC -----

Brief Summary Text - BSTX (14):

Rosenberg et al., U.S. Pat. No. 4,901,055, discloses the system VDWS (FIG.

1), based on a ceramic piezo-electric sensor, preferably mounted on the floor of the vehicle. The principle of the sensor is the piezo-electric effect produced by the mechanical impact of the plunger. The plunger 113, mounted on the acceleration pedal arm in FIG. 1, is resting upon the sensor 110. When driving, the driver's foot, 100, actuating the accelerator pedal 102, separates the plunger from the sensing area of the sensor. When the driver's foot releases the accelerator pedal, the plunger applies an impact